

ABSTRACT

IMPORTANCE OF DODDER SPECIES (*Cuscuta* spp.) IN ALFALFA GROWING AREAS IN AYDIN PROVINCE AND DETERMINATION OF THE EFFECT OF HERBICIDES AND PLANT EXTRACTS FOR THEIR CONTROL

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This study was conducted in Aydın to determine the dodder (*Cuscuta* spp.) species, their frequencies and densities in alfalfa growing areas. Also, the effects of some herbicides and plants extracts were evaluated in terms of their efficacies in dodder control. As the result the dodder species found in Aydın province was identified as *Cuscuta campestris*. In total 136 alfalfa growing areas were visited and dodder was found on 28 fields. So the frequency was determined as 20,6 % with a density of 35,4 shoot per m⁻². General and special coverage of dodder was found 1,4 and 6,9 %, respectively. In addition to this, herbicides and plant extracts were evaluated in pot experiments for their efficacy against dodder. The herbicides used in the experiment were Imazethapyr, Bentazone+Imazamox, Imazamox, Bentazone+Imazamox with Imazamox and Pendimethaline. The plant extracts in the study were *C. murale* leaf extract+ *Melia azedarach* seed extract, *C. murale* leaf extract (post emergence), *C. murale* leaf extract (pre-emergence), *Melia azedarach* leaf extract, *Melia azedarach* seed extract and *Melia azedarach* leaves were applied over soil surface i.e. six plant extract were used. Results showed that all herbicide treatments except from Imazthapyr provided 90 % control of dodder. Among plant extracts only two appliactions provided over 90 % dodder control, these were *Melia azaderach* leaves incorporated to the soil and *C. murae* leaf extract applied at planting.

Keywords: *Cuscuta*, Density, Control, Aydın